REMARKS

Reconsideration and withdrawal of the rejections set forth in the Office Action dated June 2, 2004 are respectfully requested. In that Office Action, the Examiner rejected Claims 1-3, 6, 8-10 and 13 as being anticipated by U.S. Patent No. 5,371,384 to Wada. Claims 4 and 11 are further rejected as being obvious in view of Wada in combination with U.S. Patent No. 5,768,032 to Sawaki et al. Further, the Examiner indicated that Claims 7 and 14 were obvious in view of Wada in combination with applicant's prior art as shown in Figure 1. Finally, the Examiner indicates that Claims 5 and 12 would be allowable if rewritten in independent form including all the limitations of the base claim. Applicant respectively requests reconsideration.

Initially, applicant has amended Claims 5 and 12 to include the limitation of its base claim. Therefore, Claims 5 and 12 are now in condition for allowance.

With respect to the remaining claims, the primary reference relied upon by the Examiner is the Wada patent. Specifically, the Examiner argues that the structure denoted by reference numeral 34 in Figures 6 and 14 disclose a trench for separating micro-lenses. However, in the Wada patent, reference numeral 34 denotes a light intercepting section 34 that is formed of a metal layer. The light intercepting section 34 has a primary function of preventing stray light from diffusing between a **light emitting diode** and light sensing pixels in an adjacent image sensor region. Thus, the light intercepting section 34 is only formed between the imaging section of the integrated circuit and a light emitting device section of the integrated circuit. See Figure 14 and column 8, lines 51-68.

In other words, the integrated circuit of the Wada patent includes both a light emitting diode section and an imaging section. The light intercepting section 34 is used to prevent light emitted from the light emitting diode (see Figure 13, and particularly note how light L is emitted) from interfering with the imaging section. Thus, unlike the present invention, the light

intercepting section 34 does not surround a light sensitive element. Rather, the light intercepting section 34 surrounds a light emitting diode. For this reason, the Wada patent does not satisfy the amended claims which reads that the trench structure surrounds each of the micro-lenses, which is in turn formed above a **light sensitive element**.

Additionally, the light intercepting section 34, even if interpreted as the Examiner wishes, does not extend to the interface between the micro-lens and the layer that is directly underlying the micro-lens. Claims 1 and 8 have been amended to indicate that the trench is formed in the layer that is directly underneath the micro-lens ("micro-lens . . . directly atop said layer"). Moreover, Claims 1 and 8 have been amended to indicate that the trench **extends upwardly all the way to the interface between the micro-lens and the trench structure layer**. In other words, the trench is open to the micro-lens material. In contrast, the Wada patent discloses that the trench is never in contact with the interface between the micro-lens and the layer underlying the micro-lens. For this independent reason, all of the claims as amended are in condition for allowance.

In view of the foregoing, the claims pending in the application comply with the requirements of 35 U.S.C. § 112 and patentably define over the applied art. A Notice of Allowance is, therefore, respectfully requested. If the Examiner has any questions or believes a telephone conference would expedite prosecution of this application, the Examiner is encouraged to call the undersigned at (206) 359-6488.

Respectfully submitted,

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